NEW MINERAL NAMES*

JOHN L. JAMBOR1, NIKOLAI N. PERTSEV2, AND ANDREW C. ROBERTS3

1Department of Earth and Ocean Sciences, University of British Columbia, Vancouver, British Columbia
2IGREM RAN, Russian Academy of Sciences, Moscow 10917, Staromonetnii 35, Russia
3Geological Survey of Canada, 601 Booth Street, Ottawa K1A 0E8, Canada

Andyrobertsite*, calcioandrobertsite*


The minerals form a lamellar intergrowth that is crystallographically continuous. Electron microprobe analyses for andyrobertsite and calcioandrobertsite gave, respectively, K2O 4.00, 4.05, CaO 1.36, 3.52, MnO 0.64, 0.86, CdO 6.48, 1.26, ZnO 0.19, 0.04, CuO 31.72, 32.86, As2O3 47.58, 49.56, H2O (calc.) 4.44, 4.61, sum 96.41, 96.75 wt%, corresponding to K1.03(Cd0.61Ca0.30Mn0.11)4.46(AsO4)4.04[As(OH)2O2](H2O)2. The minerals occur as [As(OH)2O2](H2O)2, ideally KCdCu5(AsO4)4[As(OH)2O2](H2O)2, plates, up to 0.1 mm thick, that form dark brown scaly crusts and hemispheres up to 100 μm across. Electron microprobe analysis gave Cd:Ca = 0.5:0.5. Greenish blue and nonpleochroic in transmitted (CuKβ and KCaCu5(AsO4)4[As(OH)2O2](H2O)2. The minerals occur as plates, up to 0.1 x 5 x 10 mm, that radiate from the center of an aggregate 1.4 cm long and 1 cm at the base. Crystals have {100} dominant, with {210}, {001}, {102}, and {011}. Electric blue color, vitreous luster, pale blue streak, brittle, conchoidal fracture, good cleavage parallel to {100}, H = 5, nonfluorescent, no twinning observed, Dabk = 4.011 g/cm3 for Z = 2 and formula CdCa = 0.5 Å. Greenish blue in transmitted light, biaxial negative, X = a = 12° (in β obtuse), Y = b, Z = c. For anandrobertsite and calcioandrobertsite, respectively, α = 1.720(3), 1.713(3), β = 1.749(1), 1.743(1), γ = 1.757(1), 1.749(1), 2V = 50(5), 50(5)°, 2V = 55(5), 48°. Single-crystal X-ray structure study indicated monoclinic symmetry, space group P21/m; a = 9.810(1), b = 10.034(3), c = 9.975(4) Å, β = 101.84(4)° as refined from a 114 mm Debye–Scherrer pattern (CuKα radiation) with strongest lines of 9.64(100), 102.00(100), 4.46(40,120), 3.145(50,130,122), 3.048(40,222), and 2.698(40,320).

The mineral occurs in cavities in a pegmatite containing adamite and olivenite in a specimen from the Tsumeb mine, Namibia. The new names are for Andrew C. Roberts (b. 1950), mineralogist at the Geological Survey of Canada, Ottawa. Type material is in the Royal Ontario Museum, Toronto, and in the Smithsonian Institution, Washington. J.L.J.

Bleasdaleite*


The mineral occurs as tabular crystals, up to 20 μm across and <1 μm thick, that form dark brown scaly crystals and hemispheres up to 100 μm across. Electron microprobe analysis gave CaO 7.59, CuO 34.79, Bi2O3 15.53, Fe2O3 3.04, Al2O3 0.13, P2O5 21.70, As2O3 3.47, CI 1.01, H2O (by difference) 16.10, O ≈ Cl 0.23, sum 100 wt%, corresponding to (Ca1.63Fe0.33Bi0.69Cu0.16Cu0.24PO4)3.67(AsO4)0.04[PO4]21.71(OH)7.7H2O. Resinous luster, pale brown streak, H = 2, transparent, well-developed {011} cleavage, Dabk = 2.77 g/cm3 for Z = 4. Optically biaxial negative, α = 1.718(4), β = 1.748(3), γ = 1.748(3), 2V = 0°, X = c, Y/Z = a/b, medium strong pleochroism, X = pale yellow-brown, Y = Z = dark yellow-brown, X < Y = Z. Electron diffraction patterns and the similarity to the cell of richelsdorfite indicated monoclinic, pseudotetragonal symmetry, probable space group C2/m; a = 14.200(7), b = 13.832(7), c = 14.971(10) Å, β = 102.08(8)° as refined from a 100 mm Guinier–Hägg pattern (CrKα radiation). Strongest lines (intensities from a 114 mm Gandolfi pattern, Co radiation) are 14.57(100), 6.95(40,200), 6.28(40,1201), 3.469(30,312,400), 2.816(40,043), 2.507(30,152,243), and 2.452(30,440).

The mineral occurs in cavities in a pegmatite containing supergene chalcocite partly oxidized to a suite that includes malachite, pseudomalachite, chalcocite-turquoise, ulrichite, torbernite, libethenite, and iodargyrite. The new mineral name is for Reverend John I. Bleasdale (1822–1884) in recognition of his promotion of mineralogy in Victoria. Type material is in the Museum of Victoria, Melbourne, and in the South Australian Museum, Adelaide, Australia. J.L.J.

Formicaitc*


Electron microprobe analysis gave Ca 29.80, Na 0.13, Mn 0.23, K 0.10, and gas chromatography of combustion products

*Before publication, minerals marked with an asterisk were approved by the Commission on New Minerals and Mineral Names, International Mineralogical Association.
Korobitsynite


Electron microprobe analysis of more than 50 crystals gave an average of Na₂O 13.87, K₂O 0.03, BaO 0.54, ZrO₂ 0.04, TiO₂ 21.38, SiO₂ 40.91, Nb₂O₅ 10.14, H₂O 12.20 (TGA, one sample), sum 99.11 wt%, corresponding to Na₂O·2BaO·0.02(Ti₅.9Nb₃.1)Si₄O₁₂(OH)₂·3H₂O. The mineral occurs as colorless prismatic grains with needle-like crystals up to 2 cm long, showing [110], [001], [101], and [012]. Transparent, vitreous luster, brittle, H = about 5, VHN₉₅ = 620(50), uneven fracture, imperfect [011] cleavage, D₉₅ = 2.72, D calc = 2.68 g/cm³ for Z = 2. Optically biaxial positive, α = 1.646–1.650(2), β = 1.654–1.658(2), γ = 1.763–1.780(5), 2V mean = 30°, X = b, Y = c, Z = a. The infrared spectrum has absorption bands at 3500, 3390, 3250, 1633, 1118, 959, 919, 750, 667, and 454 cm⁻¹. Single-crystal X-ray structure study (R = 0.048) gave orthorhombic symmetry, space group Pbam, a = 7.349(2), b = 14.164(2), c = 7.130(1) Å. Strongest lines of the powder pattern (diffractometer, CuKα radiation, 29 lines given) are 7.09(79,001,020), 6.53(85,110), 2.362(100,201,220), 3.180(52,022,211,041), 2.553(56,202,240), and 2.075(57,242).

The mineral, which is the Ti-dominant analog of the isometric mineral nenadkevichite, was found in specimens from mines in the Alluaiv and Karnasurt mountains, Kola Peninsula, Russia. At Alluaiv Mountain, korobitsynite and nenadkevichite are megascopically indistinguishable and occur in three parageneses in miarolitic cavities of a giant pegmatite: with albite, aegirine, shortite, rhodochrosite, epidymidite, leifite, tainiolite, pyrrhotite, thermonatrite, nafoite, and amorphous bitumen; with albite, aegirine, shortite, rhodochrosite, matite; with albite, aegirine, shortite, rhodochrosite, molybdenite; and with epidote, quartz, aegirine, sidorenkite, epidymidite, sperilite, löllingite, pyrrhotite, and belovite-(Ce). At Kasnasurt Mountain, the mineral occurs within nests of a cryptocrystalline Na-Fe hydroxysilicate with natrolite, apophyllite, fluorite, sperilite, galena, and molybdenite. Epitaxial intergrowth with epidote, and irregular intergrowths with labuntsovite are common. The new mineral name is for amateur mineralogist Mikhail Fyodorovich Korobitsyn (1928–

Khaidarkanite


Electro-
The mineral occurs as yellowish brown, anhedral grains up to 2 mm in diameter. Electron microprobe analysis gave Na$_2$O 13.60, K$_2$O 0.28, CaO 2.90, MnO 7.70, Fe$_2$O$_3$ 3.00, SrO 0.09, Al$_2$O$_3$ 0.18, Y$_2$O$_3$ 0.78, La$_2$O$_3$ 2.88, Ce$_2$O$_3$ 5.14, Pr$_2$O$_3$ 0.48, Nd$_2$O$_3$ 1.45, Gd$_2$O$_3$ 0.20, SiO$_2$ 43.46, ZrO$_2$ 11.44, HFO 0.16, Nb$_2$O$_5$ 3.48, Ta$_2$O$_5$ 0.14, Cl 0.17, H$_2$O (calc.) 0.65, O$_2$ = 98.85 wt%, which for 78.09 anions as determined from the crystal-structure determination, corresponds to (Na$_{14.37}$RE$_{1.53}$K$_{0.20}$Sr$_{0.03}$)($Na_{0.66}Mn_{0.23}Y_{0.87}$O$_{3.03}$($Fe_{0.14}Mn_{0.06}Zr_{0.25}$)$_{12.64}$($ZrF_{2.99}Nb_{0.10}Hf_{0.03}$)$_{23.01}$($Nb_{0.85}Ta_{0.02}$)$_{20.87}$($Si_{24.77}Al_{0.12}$)$_{12.49}$O$_{53.06}$($O_{3.07}OH_{1.27}$Cl$_{0.73}$)$_{22.00}$), ideal Na$_4$Ca$_3$Mn$_2$Fe$_2$Zr$_2$Nb$_8$(Si$_{42.50}$O$_{101}$)$_{33.00}$($OH_{2.12}$Cl$_{0.73}$)$_{22.00}$.

The mineral is associated with sphalerite, cinnabar, galena, tetrahedrite, and numerous Pb-Sb sulfosalts in late-stage hydrothermal calcite veins that cut Ba-Fe ores and host rocks at the former Buca della Vena mine. The mineral occurs on a matrix of galena and sphalerite, containing minor greenockite and quartz, on which are pink droplets of smithsonite. The new mineral name is for Sidney Pieters (b. 1920) of Windhoek, Namibia, in recognition of his contributions to Namibian mineralogy. Type material is in the Museo di Storia Naturale e del Territorio at the University of Pisa, and in the Musée de l’École des Mines de Paris, France.


The mineral occurs as yellowish brown, anhedral grains up to 2 mm in diameter. Electron microprobe analysis gave PbO 89.55, S$_4$O$_8$ 7.58, S$^2$ = 3.05, H$_2$O (calc.) 1.79, O = S$^2$ = 1.51, sum 100.45 wt%, which for O + S$^2$ = 8 corresponds to Pb$_2$O$_4$S$_4$O$_8$S$^2$O$_2$(OH)$_2$. Crystals are colorless, vitreous luster, up to 0.3 mm in length, elongate [011], dominated by [001], with minor forms possibly [100] and [011]. Other material varies from beige-cream to off-white in color, earthy to somewhat pearly luster, opaque in masses. Sectile, uneven fracture, nonfluorescent, D$_{meas}$ = 3.20(3), D$_{calc}$ = 3.22 g/cm$^3$ for the ideal formula [S$_8$O$_4$S$^2$O$_2$](OH)$_2$. The infrared spectrum shows absorption bands characteristic of hydroxyl and thiosulfate.

The mineral occurs as earthy to nodular masses and as aggregates of free-standing to radiating bladed crystals up to 3 mm in longest dimension. Electron microprobe analysis, and partitioning on the basis of the crystal-structure determination, gave PbO 89.55, S$_4$O$_8$ 7.58, S$^2$ = 3.05, H$_2$O (calc.) 1.79, O = S$^2$ = 1.51, sum 100.45 wt%, which for O + S$^2$ = 8 corresponds to Pb$_2$O$_4$S$_4$O$_8$S$^2$O$_2$(OH)$_2$. Crystals are colorless, vitreous luster, up to 0.3 mm in length, elongate [011], dominated by [001], with minor forms possibly [100] and [011]. Other material varies from beige-cream to off-white in color, earthy to somewhat pearly luster, opaque in masses. Sectile, uneven fracture, cleavage perpendicular to [011] H = 1–2, nonfluorescent, no twinning observed, D$_{calc}$ = 6.765 g/cm$^3$ for the ideal formula and Z = 2; effervescence in dilute HCl. The infrared spectrum shows absorption bands characteristic of hydroxyl and thiosulfate.

The mineral occurs on a matrix of galena and sphalerite, containing minor greenockite and quartz, on which are pink to colorless crystals of smithsonite. The new mineral name is for Sidney Pieters (b. 1920) of Windhoek, Namibia, in recognition of his contributions to Namibian mineralogy. Type material is in the Museo di Storia Naturale e del Territorio at the University of Pisa, and in the Musée de l’École des Mines de Paris, France.


The mineral occurs as yellowish brown, anhedral grains up to 2 mm in diameter. Electron microprobe analysis gave PbO 89.55, S$_4$O$_8$ 7.58, S$^2$ = 3.05, H$_2$O (calc.) 1.79, O = S$^2$ = 1.51, sum 100.45 wt%, which for O + S$^2$ = 8 corresponds to Pb$_2$O$_4$S$_4$O$_8$S$^2$O$_2$(OH)$_2$. Crystals are colorless, vitreous luster, up to 0.3 mm in length, elongate [011], dominated by [001], with minor forms possibly [100] and [011]. Other material varies from beige-cream to off-white in color, earthy to somewhat pearly luster, opaque in masses. Sectile, uneven fracture, cleavage perpendicular to [011] H = 1–2, nonfluorescent, no twinning observed, D$_{calc}$ = 6.765 g/cm$^3$ for the ideal formula and Z = 2; effervescence in dilute HCl. The infrared spectrum shows absorption bands characteristic of hydroxyl and thiosulfate.

The mineral occurs on a matrix of galena and sphalerite, containing minor greenockite and quartz, on which are pink to colorless crystals of smithsonite. The new mineral name is for Sidney Pieters (b. 1920) of Windhoek, Namibia, in recognition of his contributions to Namibian mineralogy. Type material is in the Museo di Storia Naturale e del Territorio at the University of Pisa, and in the Musée de l’École des Mines de Paris, France.


The mineral occurs as earthy to nodular masses and as aggregates of free-standing to radiating bladed crystals up to 3 mm in longest dimension. Electron microprobe analysis, and partitioning on the basis of the crystal-structure determination, gave PbO 89.55, S$_4$O$_8$ 7.58, S$^2$ = 3.05, H$_2$O (calc.) 1.79, O = S$^2$ = 1.51, sum 100.45 wt%, which for O + S$^2$ = 8 corresponds to Pb$_2$O$_4$S$_4$O$_8$S$^2$O$_2$(OH)$_2$. Crystals are colorless, vitreous luster, up to 0.3 mm in length, elongate [011], dominated by [001], with minor forms possibly [100] and [011]. Other material varies from beige-cream to off-white in color, earthy to somewhat pearly luster, opaque in masses. Sectile, uneven fracture, cleavage perpendicular to [011] H = 1–2, nonfluorescent, no twinning observed, D$_{calc}$ = 6.765 g/cm$^3$ for the ideal formula and Z = 2; effervescence in dilute HCl. The infrared spectrum shows absorption bands characteristic of hydroxyl and thiosulfate.

Springcreektite*


The mineral occurs as black rhombohedral, up to 0.1 mm in size. Electron microprobe analysis gave BaO 23.43, SrO 0.27, CaO 0.15, Na\(_2\)O 0.08, VO 19.44 (25.50 for a type specimen), FeO 15.02, Al\(_2\)O\(_3\) 0.32, CuO 0.17, ZnO 0.14, P\(_2\)O\(_5\) 23.26, SiO\(_2\) 0.20, H\(_2\)O (calc.) 12.16, F 0.21, O = F = 0.09, sum 94.67 wt\%, corresponding to (Ba\(_{0.92}\)Ca\(_{0.02}\)Sr\(_{0.02}\)Na\(_{0.02}\))\(_{9.99}\)O\(_{3.13}\)F\(_{0.06}\)Si\(_{0.07}\)O\(_{37.98}\)Fe\(_{0.82}\)Mn\(_{0.01}\)Ti\(_{0.16}\)O\(_{3}\). The mineral occurs as aggregates and single crystals, each to ~50 µm across; dark brown color, metallic luster, no cleavage or parting {101}, irregular fracture, H = 4–5, nonfluorescent, some crystals modified by {0001}, D\(_{\text{rms}}\) = 3.258(1), c = 17.361(9) Å as refined from a 114 mm Gandolfi pattern (CoK\(_\alpha\) radiation) with strongest lines of 5.90(90,101), 3.627(40,110), 3.073(100,113), 2.301(40,107, 2.52(100,110), 2.22(60,113), 1.85(80,115), 1.70(90,008), 1.62(90,122), 1.49(80,124), and 1.457(80,027); the calculated cell is hexagonal, a = 5.04, c = 13.55 Å, possible space group P6\(_3\)/m, Z = 2. The mineral is associated with columbite-tantalite, microlite, zircon, muscovite, and other minerals in a pegmatite mine at Altay Mountain, Xinjiang, western China.

**Discussion.** The analysis corresponds to Fe\(^{3+}\)\(_{0.52}\)Mn\(_{0.09}\)Fe\(^{5+}\)\(_{0.30}\)Mg\(_{0.03}\)Ti\(_{0.16}\)O\(_{3}\). The mineral has not been submitted to the CNMMN for a vote. In the Chinese text the authors refer to the mineral generically, as in the title of the paper; the new name, which is Chinese for iron titanium oxide, appears only in the English abstract. J.L.J.

Walfordite*


The mineral occurs as orange, equant crystals, up to 0.2 mm across. Electron microprobe analysis, and data from the crystal-structure determination, gave MgO 0.38, FeO\(_2\) 8.30, TiO\(_2\) 1.11, TeO\(_2\) 81.74, TeO\(_3\) 8.67, sum 100.20 wt\%, corresponding to (Fe\(^{3+}\)\(_{0.60}\)Te\(^{4+}\)\(_{0.40}\)Ti\(_{0.00}\)O\(_{2.00}\)Te\(_{2.00}\)O\(_{6.00}\))\(_{9.87}\)Te\(^{4+}\)O\(_{3}\), ideally (Fe\(^{3+}\)Te\(^{4+}\))\(_{2}\)Te\(^{4+}\)O\(_{3}\), which is the Fe\(^{3+}\)-dominant analog of winstanleyite. Most crystals are simple cubes, some are modified by {111}. Opaque, adamantine luster, yellow-orange streak, brittle, no cleavage or parting, H not determinable, nonfluorescent, D\(_{\text{calc}}\) = 5.84 g/cm\(^3\) for Z = 8. Optically isotropic, n\(_{\text{calc}}\) = 2.23, pale gray in reflected light, with colorless to lemon-yellow internal reflections. Single-crystal X-ray structure study (R = 0.0349) indicated cubic symmetry, space group I\(_{2}\)/a\(_{3}\), a = 11.011(5) Å. The X-ray powder pattern (114 mm Gandolfi, CuK\(_\alpha\) radiation) has strongest lines of 4.486(29,211), 3.175(100,222), 2.749(37,400), 1.944(44,440), and 1.658 (45,622).

The mineral is associated with alunite, rodalquilarite, gold, emmonsite, jarosite, and pyrite in the interstices of silicified hydrothermal breccias at the Tambo mine (approx. 30° W longitude and 30° S latitude) in Chile. The new mineral name is for geologist Phillip Walford (b. 1945) of Toronto, Canada, who collected the original specimens. Type material is in the Royal Ontario Museum, Toronto. J.L.J.

Tietayangite


Wet-chemical analysis gave FeO 62.23, MgO 0.22, MnO 1.24, FeO 13.98, TiO\(_2\) 17.96, SiO\(_2\) 3.87, CaO 0.20, sum 99.70 wt\%, for which (Fe\(^{3+}\)+Mn):Fe\(^{2+}\)+Mg):Ti = 8.20:0.25:0.21, or 8:2:2. Mössbauer spectroscopy indicated Fe\(^{3+}\)/Fe\(^{2+}\) = 3.54. The mineral occurs as two irregular grains, roughly 1 to 1½ cm across; dark brown color, metallic luster, red streak, no cleavage, H = 5½ – 6, D\(_{\text{meas}}\) = 5.30–5.50 g/cm\(^3\). In reflected light, gray-white color, poor reflection pleochroism; reflectance percentages, given in 10 nm steps from 400 to 700 nm, range from 27.37 to 22.65. Strongest lines of the X-ray powder pattern (57 mm camera) are 2.72(100,014), 2.52(100,110), 2.22(60,113), 1.85(80,115), 1.70(90,008), 1.62(90,122), 1.49(80,124), and 1.457(80,027); the calculated cell is hexagonal, a = 5.04, c = 13.55 Å, possible space group P6\(_3\)/m, Z = 2. The mineral is associated with columbite-tantalite, microlite, zircon, muscovite, and other minerals in a pegmatite mine at Altay Mountain, Xinjiang, western China.

**Discussion.** The analysis corresponds to Fe\(^{3+}\)\(_{0.52}\)Mn\(_{0.09}\)Fe\(^{5+}\)\(_{0.30}\)Mg\(_{0.03}\)Ti\(_{0.16}\)O\(_{3}\). The mineral has not been submitted to the CNMMN for a vote. In the Chinese text the authors refer to the mineral generically, as in the title of the paper; the new name, which is Chinese for iron titanium oxide, appears only in the English abstract. J.L.J.

Xenotime-(Yb)*


One of two listed electron microprobe analyses gave Lu 9.84, Yb 32.27, Tm 2.52, Er 7.69, Ho 0.61, Dy 3.57, Gd 0.23, Y 12.51, P 29.03, sum 98.27 wt\%, corresponding to (Yb\(_{0.40}\)Y\(_{0.27}\)La\(_{0.13}\)E\(_{0.12}\)D\(_{0.09}\)Tm\(_{0.02}\)Ho\(_{0.01}\)La\(_{0.01}\)Yb\(_{0.01}\)O\(_{4}\). The mineral occurs as aggregates and single crystals, each to ~50 µm, in muscovite. Colorless to pale yellowish or brownish, transpar-
ent; vitreous luster, white streak, brittle, uneven fracture, no cleavage or parting, H not determinable, nonfluorescent, \( D_{\text{pl}} = 5.85 \, \text{g/cm}^3 \) for \( Z = 4 \). Optically uniaxial positive, \( \alpha = 1.717(3) \), \( \epsilon = 1.802(5) \), nonpleochroic. The X-ray powder pattern (114 Gandolfi, CuK\( \alpha \) radiation) was indexed on a tetragonal cell consistent with space group \( I4_{1}amd; a = 6.866(2), \epsilon = 6.004(3) \) Å. Strongest lines are 4.515(70.011), 3.437(100.020), 2.556(80.112), and 1.760(50.132).

The mineral is associated with muscovite, ferrocolumbite, albite, microcline, and quartz in a granitic pegmatite near the margin of the Lac du Bonnet batholith, Township 16, Range 15. Type material is in the R.B. Ferguson Museum of Mineralogy at the University of Manitoba, and in the Royal Ontario Museum, Toronto. J.L.J.

\[
(\text{Rh,Ni})_2\text{As}_4
\]


Large lamellae of Pt-Fe alloy intergrown with osmium contain tabular inclusions, up to 25 \( \mu \)m long, for which an electron microprobe analysis gave Ru 0.23, Rh 55.36, Pd 1.01, Fe 2.30, Pt 4.10, Ni 6.71, As 31.22, sum 101.63 wt%, corresponding to (Rh_5.25Pt_0.20Ir_0.12Pd_0.09Ru_0.02Ni_1.12Fe_0.12)\text{As}_4. Microprobe analysis gave Ru 0.23, Rh 55.36, Pd 1.01, Ir 2.30, Pt 4.10, Fe 0.70, Ni 6.71, As 31.22, sum 101.63 wt%, corresponding to (Pt_1.54Rh_1.08Pd_0.57Ir_0.25)\text{As}_4.

Discussion. Analyses are also given for Ir(Ni,Fe,Cu)_2S_3 (see and identifications are mainly speculations. J.L.J.

The minerals occur as round to irregular microcrystalline aggregates, and rarely as isolated prismatic crystals up to 10 \( \mu \)m long, within microveins and microcavities, associated mainly with hematite-brainite-quartz and cryptomelane-group minerals. Compositions of the REE minerals correspond to those of chernovite-(Y) and the La and Nd analogs of chernovite or of gasparite-(Ce). One of two listed electron microprobe analyses for the Nd analog, and one of 12 listed analyses for the La analog, gave, respectively, As_2O_5 39.83, 39.51, V_2O_5 2.22, 0.66, P_2O_5 0.03, 0.75, SiO_2 0.02, 0.04, La_2O_3 3.85 28.83, Ce_2O_3 1.09, 9.11, Pr_2O_5 11.27, 10.76, Nd_2O_3 37.05, 8.97, Eu_2O_3 0.13, <0.06, Gd_2O_3 0.47, 0.46, Y_2O_3 1.21, 0.25, Th_2O_3 0.88, 0.38, CaO 1.78, 0.20, sum 99.83, 99.92 wt%, corresponding to \( \Sigma (\text{Nd}_0.60 \text{Pr}_0.19 \text{Ca}_0.09 \text{La}_0.06 \text{Y}_0.05 \text{Gd}_0.02 \text{Th}_0.02) \Sigma_1.01 \text{O}_4 \) and \((\text{La}_0.49 \text{Pr}_0.18 \text{Ce}_0.15 \text{Nd}_0.17 \text{Gd}_0.03) \Sigma_1.00 \text{O}_4\) and \((\text{La}_0.49 \text{Pr}_0.05 \text{Gd}_0.02) \Sigma_1.00 \text{O}_4\).

New Data

Calciosamarskite


The abstract in Am. Mineral., 84, p. 1467, 1999, prompted further discussion by several participants, including the Vice-Chairman and Chairman of the CNMMN. It was agreed by all that the formula of the samarskite-group minerals is of the type \( \text{ABO}_4 \) rather than \( \text{A}_3\text{B}_5\text{O}_{15} \). Although the status of calciosamarskite had been questioned in a CNMMN-approved paper on nomenclature (Am. Mineral., 62, p. 406, 1977), the mineral had not been officially discredited; thus, calciosamarskite is a valid species. J.L.J.

Discredited Mineral

Platynite


Platynite from Falun, Sweden, was originally described in 1910 and commonly has been assigned the formula \( \text{PbBi}_2(\text{Se,S})_3 \). Although a mineral with such a formula may exist, re-examination of the type specimens has shown them to consist of a mixture of laitakarite and galena. The discreditation of platynite has been approved by the CNMMN. J.L.J.